

REMARKS

I. Amendments

Independent claims 1 and 8 are amended to indicate that the feed nozzle to which the protective shield relates is for use in an FCC unit. Support for this amendment is found in the specification at page 1, lines 10-16.

II. § 102(b) Rejection of claims 1, 3, 4 and 8 over U.S. 4,025,045 to Kubiak

It is argued by the Examiner that the protective shield of the Kubiak patent includes all the elements of the Applicants' claimed invention. It is asserted, however, that the Kubiak patent fails to disclose a number of the aspects of the Applicants' claimed invention.

The Kubiak patent is directed to a nozzle guard for an airless spray pistol. See e.g. column 1, lines 5-8. The nozzle guard is an axially extending tubular guard member that projects beyond and surrounds the nozzle tip. See column 2, lines 34-43; column 7, lines 44-49; column 8, lines 9-11; and the Figures elements 20, 30 and 33. The guard member includes axially extending slots thereby making the tubular guard member circumferentially discontinuous. See column 2, lines 34-43; column 5, lines 22-27, 34-40; column 7, lines 49-55; and the Figures element 33. The end of the guard tip is open without any extension thereof. See the Figure element 30.

One difference between the inventive protective shield and the nozzle guard taught by the Kubiak patent is in the intended uses of the two elements. The Kubiak patent is directed to a nozzle guard for use in conjunction with an airless paint spray gun; whereas, the inventive protective shield is for a feed nozzle for use in an FCC unit.

Even with the intended uses being significantly different, the structure of the inventive protective shield is significantly different from the structure of the safety tip guard of the Kubiak patent. As noted in the Applicants' specification, the inventive protective shield is novel in that the shroud not only encloses the feed nozzle from the side, but it also has a top cover. See the Applicants' specification at page 4, lines 15-19. These features are recited in claim 1 where it states that the shield is to completely surround the cylindrical circumference of the feed nozzle. See claim 1. The nozzle guard of the Kubiak patent, on the other hand, does not completely surround the spray tip, but, rather, it includes a slot. See the Kubiak patent at column 2, lines 34-43; column 5, lines 22-27, 34-40; column 7, lines 49-55; and the Figures element 33.

Another feature of the inventive protective shield recited in claim 1 different from the nozzle guard of the Kubiak patent is that the inventive protective shield includes an extension that extends around the end of the feed nozzle so as to cover a portion of the dispensing end of the feed nozzle. See claim 1. Thus, the structure of the end portion of the inventive protective

shield is significantly different from the structure of the end portion of the nozzle guard of the Kubiak patent in that the Kubiak nozzle guard is a tube extending axially from the nozzle orifice and which has a sharp, open end with no external or internal extensions thereof as is recited in the Applicants' claim 1. The claimed extensions are shown in the Applicants' figures.

In view of the above-noted differences, the Applicants respectfully submit that the claimed invention is patentable over the Kubiak patent. Reconsideration and withdrawal of this rejection are therefore respectfully requested.

III. § 102(b) Rejection of claims 1, 3-6 and 8 over U.S. 3,952,955 to Clements

It is argued by the Examiner that the protective shield of the Clements patent includes all the elements of the Applicants' claimed invention. It is asserted, however, that the Clements patent fails to disclose a number of aspects of the Applicants' claimed invention.

The Clements patent is directed to a safety tip guard for use with a spray paint gun. See e.g. column 1, lines 5-10. The tip guard of the Clements patent has two outwardly beveled interior surfaces that are shaped to allow for the expanding paint spray pattern to pass without interference. See column 2, lines 62-67, and Figures elements 10, 15, 16 and 17. A slot is cut through the entire center surface of the guard to provide for the free flow vertical expansion of the spray pattern. See column 2, line 65-68, and Figures element 17.

One difference between the inventive protective shield and the tip guard taught by the Clements patent is in the intended uses of the two elements. The Clements patent is directed to a safety tip guard for use in conjunction with an airless paint spray gun; whereas, the inventive protective shield is for a feed nozzle for use in an FCC unit.

Even with the intended uses being significantly different, the structure of the inventive protective shield is significantly different from the structure of the safety tip guard of the Clements patent. As noted in the Applicants' specification, the inventive protective shield is novel in that the shroud not only encloses the feed nozzle from the side, but it also has a top cover. See the Applicants' specification at page 4, lines 15-19. These features are recited in claim 1 where it states that the shield is to completely surround the cylindrical circumference of the feed nozzle. See claim 1. The tip guard of the Clements patent, on the other hand, does not completely surround the spray tip, but, rather, it includes a slot. See the Clements patent at column 2, lines 65-68 and Figure element 17.

Another feature of the inventive protective shield recited in claim 1 different from the safety tip guard of the Clements patent is that the inventive protective shield includes an extension that extends around the end of the feed nozzle so as to cover a portion of the dispensing end of the feed nozzle. See claim 1. This feature is significantly different from the feature of the Clements patent that requires the safety tip guard to have outwardly beveled

interior surfaces that are shaped to allow the expanding paint spray pattern to pass without interference. See the Clements patent at column 2, lines 62-65 and Figure elements 10, 15 and 16.

In view of the above-noted differences, the Applicants respectfully submit that the claimed invention is patentable over the Clements patent. Reconsideration and withdrawal of this rejection are therefore respectfully requested.

IV. § 103 Rejection of claims 7 and 9 over U.S. 3,952,955 to Clements

It is argued by the Examiner that the Clements patent discloses all the featured elements of the claimed invention except the specific angle range of the planes and the specific method step of performing visualization tests. However, the Examiner argues that these are obvious limitations since the spray tests are known and it is within the knowledge of those skilled in the art to derive such angles and planes.


The Applicants note, as discussed above, that numerous of the claimed features of the inventive protective shield are not disclosed or taught by the Clements patent, and, thus, the Clements patent fails to teach each and every limitation of the claims. Since no combination of references teach the claimed invention, the Applicants, therefore, respectfully submit that the invention is unobvious over the Clements patent. Reconsideration and withdrawal of this rejection are therefore respectfully requested.

V. Conclusion

In view of the above amendments and remarks, the Applicants respectfully request the withdrawal of the rejections and early allowance of this application.

Respectfully submitted,

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